

## INSTALLATION AND OPERATING INSTRUCTIONS

### VENTILATION FAN / LIGHT / NIGHT LIGHT

## READ AND SAVE THESE INSTRUCTIONS

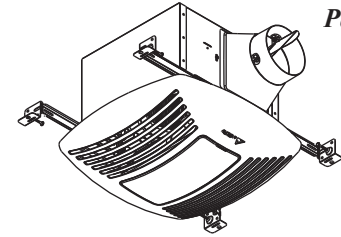
### GENERAL SAFETY INFORMATION

1. Make sure that the electric service supply voltage is AC 120V, 60Hz.
2. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
3. Always disconnect the power source before working on or near the ventilating fan, motor or junction box.
4. Protect the power cord from sharp edges, oil, grease, hot surfaces, chemicals or other objects.
5. Do not kink the power cord.
6. Do not install the unit where ducts are configured as shown in Fig. A.
7. Provide suction parts with proper ventilation.
8. This unit is UL listed for use over a bathtub or shower when installed in a GFCI protected branch circuit.
9. These ventilating fans are intended for residential usage only.

### WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
2. Before servicing or cleaning the unit, switch the power off on the service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
3. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
4. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and local code authorities.
5. When cutting or drilling into the wall or ceiling, do not damage electrical wiring and other hidden utilities.
6. Ducted fans must always be vented to the outdoors.



7. If this unit will be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit.
8. Do not use this unit with any other solid-state control devices. Solid-state control devices may cause harmonic distortion, which can cause a motor humming noise.
9. NEVER place a switch where it can be reached from a tub or shower.
10. (Required for installation in Canada only). Do not install in a ceiling thermally insulated to a value greater than R40.

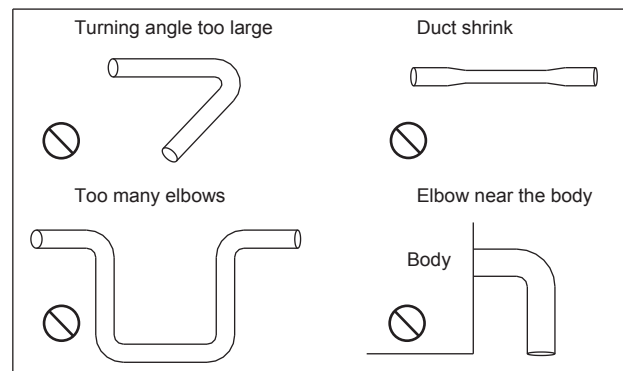


Fig. A

### CAUTION

1. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
2. Not for use in cooking areas. (Fig. B)
3. This product must properly connect to the grounding conductor of the supply circuit.
4. To reduce the risk of injury to persons, install the fan at least 7 feet (2.1m) above the floor.

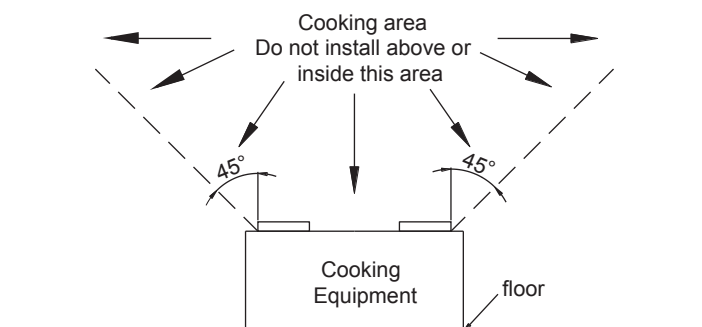


Fig. B

**SUPPLIED ACCESSORIES**

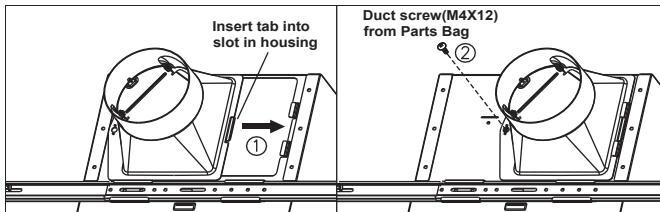
Part name	Appearance	Quantity
Grille		1
Tapping screw (Ψ 4x25)		4
Screw #8-32x1/4"		4
Grille bracket screw (M4x6)		1
Grille screw (M4x30)		2
Nut (M4x4.4)		1
Duct connector		1
Duct screw (M4x12)		1
Suspension bracket I 13" (318.5)		2
Suspension bracket II 13" (318.5)		2
Grille bracket 9.68"		1
GU24 base bulb lamp (26W)		1
E12 base bulb lamp (4W)		1

Inches (mm)

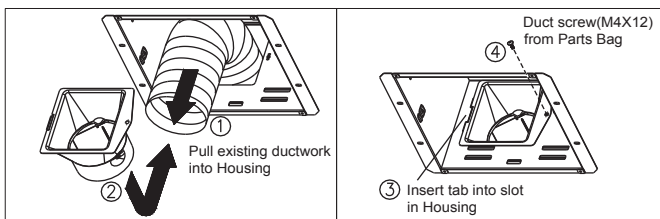
**INSTALLATIONS**

**Attach Duct Connector**

**Option 1.** Attach the duct connector from the outside, and secure using the duct screw (M4X12).



**Option 2.** Attach the duct connector from the housing can inside, and secure using the duct screw (M4X12).



Note: Remove the tape from the damper and adaptor before installation.

**1. Using suspension brackets**

- 1-1. Sliding suspension brackets are available to allow the housing to be positioned between joists up to a span of 24".
- 1-2. Insert the suspension brackets into the channels on the housing. Make sure the tabs face up as shown. (Fig. C)
- 1-3. Extend the suspension brackets to fit the width of the joists. Hold the fan in place by wrapping the suspension bracket tabs around the bottom of the joist. Make sure the fan body is level and perpendicular to the joist. (Fig. D & E)
- 1-4. Ensure that the distance between the ceiling and fan body is appropriate for mounting the grille.
- 1-5. Secure the suspension brackets to the joists with nails or by using the tapping screws (Ψ 4x25) through holes near nails.
- 1-6. Secure the suspension bracket to the fan body using the screws (#8-32 x 1/4").
- 1-7. Follow steps 2 to 6 of the installation guide to complete installation.

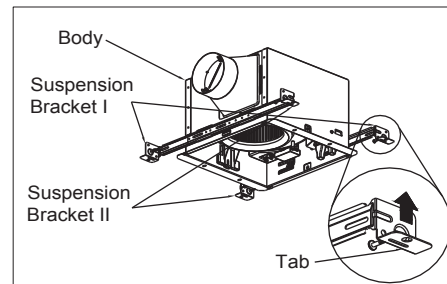


Fig. C

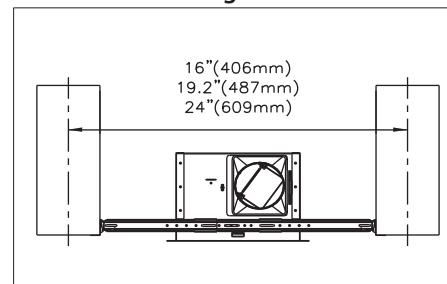


Fig. D

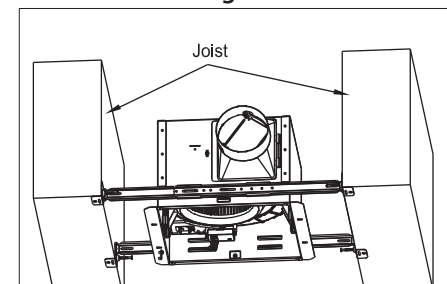


Fig. E

## 2. Duct connection

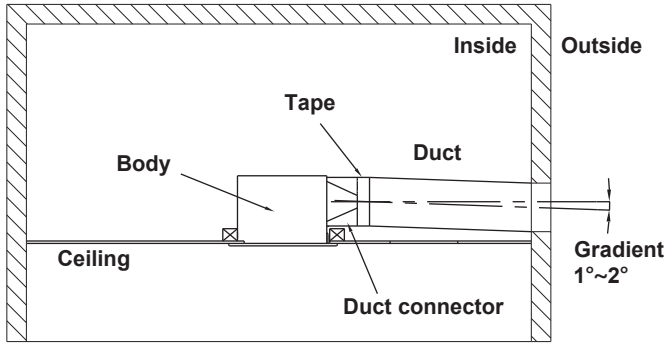


Fig. F

2-1. Insert the 4" duct (not included) into the duct connector and tape all ductwork connections to make them secure and airtight. (Fig. F)

2-2. Install the duct with a gradient 1°~2° to the outside.

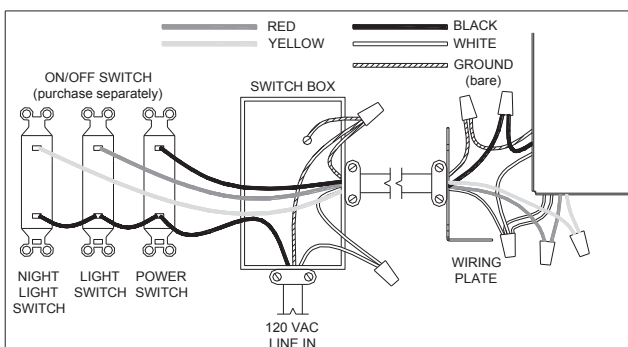
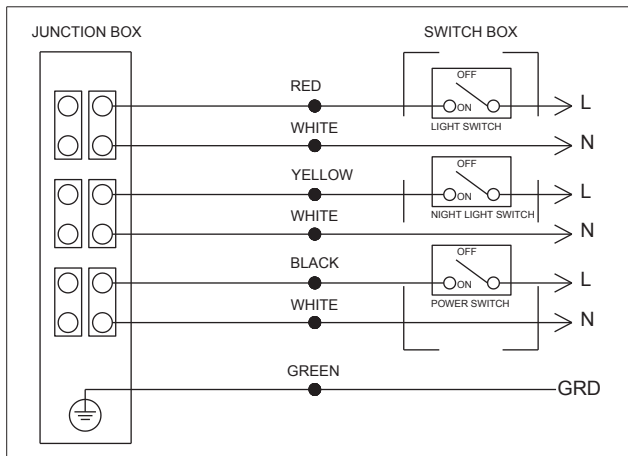
## 3. Connect wiring

3-1. Follow all local electrical and ANSI/NFPA70 safety codes.

3-2. NEVER place a switch where it can be reached from a tub or shower.

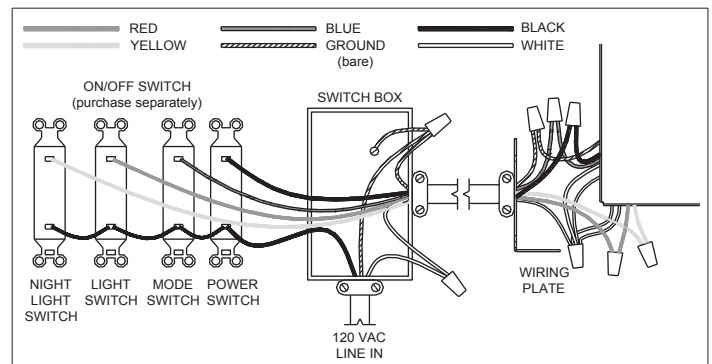
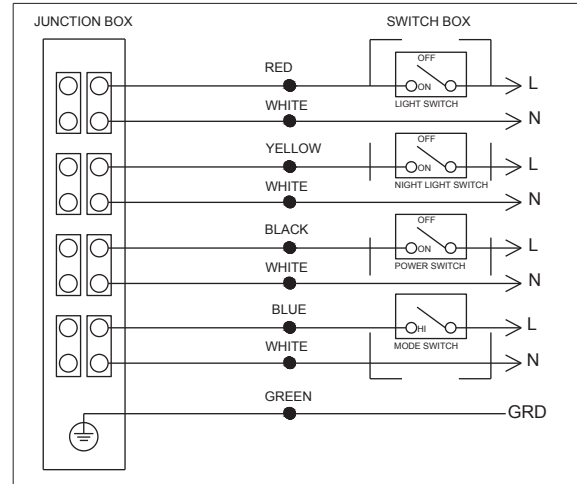
3-3. Connect wires as shown in the wiring diagrams.

Single Speed Models: SIG80L, SIG110L



Humidity Models: SIG110HL

Dual Speed Models: SIG110DL

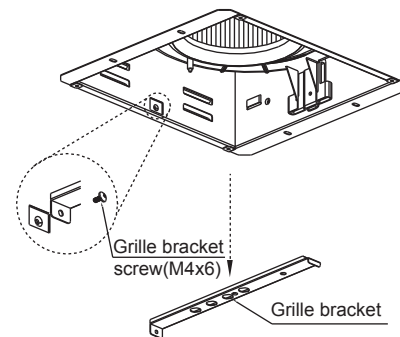


3-4. Using wire nuts (not included), connect the house power cable to the ventilating fan wires.

3-5. 14 AWG (2.1 mm<sup>2</sup>) is the smallest conductor that shall be used for branch-circuit wiring.

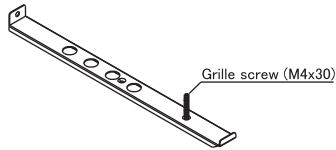
## 4. Grille attachment

4-1. Loosen grille bracket screw (M4x6) and unload grille bracket.

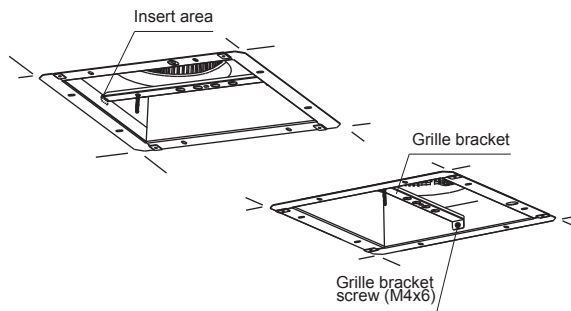


4-2. Mount the grille to the grille bracket by using the mount grille screw (M4x30-2 PCS).

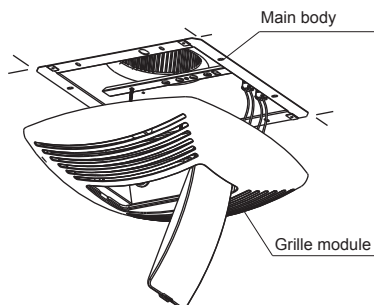
4-2-1. Lock the grille screw (M4×30) into the grille bracket.



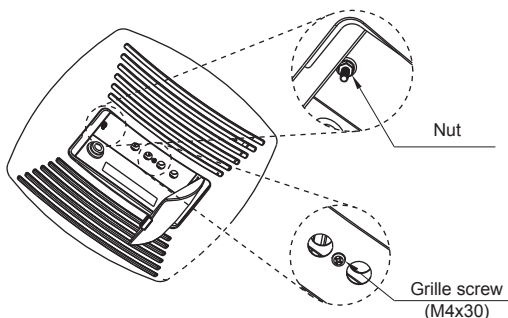
4-2-2. Insert the grille bracket module into the main body, and use grille bracket screw (M4×6) to affix the main body.



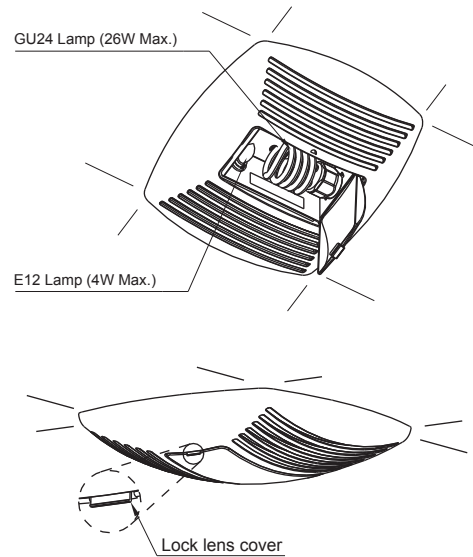
4-2-3. Mount the grille onto the main body by using the location screw.



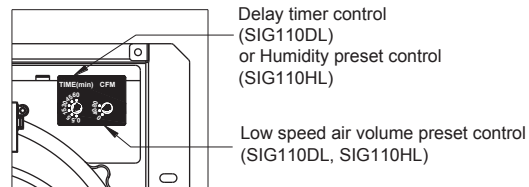
4-2-4. Attach the grille onto the main body by using the grille screw and nut, respectively.



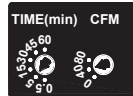
4-2-5. Install the light bulb and close the lens cover to lock into place.



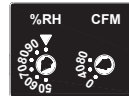
## 5. Operation



SIG110DL control options



SIG110HL control options



Single Models: SIG80L, SIG110L

5-1. Single speed control mode: Turn the POWER switch on to operate at single speed mode - the LED indicator will be green.

Humidity Models: SIG110HL

5-2. Humidity control mode: Turn the POWER switch on to operate at humidity control mode - the LED indicator will be blue. When the ambient humidity is higher than the user-adjustable set-point, the fan will run at full speed. When the ambient humidity is lower than the set-point, the fan will continue to run at full speed until a 10-minute time delay has elapsed, and then will automatically change to the user-adjustable low speed airflow.

5-3. Full speed mode: Turn the MODE switch on to operate at full speed mode - the LED indicator will be amber.

5-4. Humidity tolerance is about  $\pm 10\%$ . As the fan is used throughout the years, dust will accumulate periodically. This will influence the precision of the humidity detector. Readjusting the humidity switch will address this issue.

Factory setting: low speed airflow 40CFM, humidity 60%RH.

Dual Speed Models: SIG110DL

5-5. Low speed control mode: Turn the POWER switch on (MODE switch is off) to operate at the user-adjustable low speed airflow - the LED will be green.

5-6. Full speed control mode: Turn both the POWER switch & the MODE switch on to operate at full speed mode (LED indicator will be amber). When the user turns the MODE switch off, the fan will continue to run at full speed until the user-adjusted time delay has elapsed. The fan will then automatically change to the user-adjusted low speed airflow. The LED indicator will be green.

Factory settings: low speed airflow at 40CFM, time delay at 15 minutes.

### MAINTENANCE WARNING:

Disconnect the power source before working on the unit. Routine maintenance must be done every year.

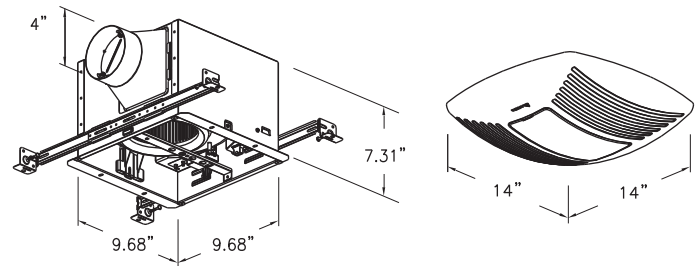
#### CAUTION:

1. Never use gasoline, benzene, thinner or any other such chemicals to clean the ventilating fan.
2. Do not allow water to enter the motor.
3. Do not soak resin parts in water over 60°C (140°F).

#### CLEANING

1. Open lens cover. Remove the light bulbs carefully. Disassemble the lock screw, lock nut and light power connections to remove grille.
2. Wash and clean grille. CAUTION: Do not let water into the lamp base. (Use a non-abrasive kitchen detergent and wipe dry with a clean cloth.)
3. Remove dust and dirt from the ventilating fan.
4. Using a cloth dampened with non-abrasive kitchen detergent, remove any dirt from ventilating fan. Wipe dry with a clean cloth.
5. Replace the grille.

### DIMENSIONS



### SPECIFICATIONS

Model No.	Voltage (V)	Frequency (Hz)	Air Flow @ 0.1" SP (CFM)	Weight (lb.)	Power (W)	Note
SIG80L	120	60	80	10.7	48.0	Single Speed
SIG110L	120	60	110	10.7	53.0	Single Speed
SIG110HL	120	60	110	10.7	53.0	Humidity Sensor
SIG110DL	120	60	110	10.7	53.0	Dual Speed

Note: Design and specifications subject to change without notice.

### WARRANTY

#### DELTA ELECTRONICS THREE YEAR LIMITED WARRANTY

Delta Electronics Inc. ("Delta Electronics") warrants to the original consumer purchaser in the USA that the Breez ventilation fan products will be free from defects in material or workmanship. This warranty is limited to three (3) years from the original date of purchase. Limitations and Exclusions

1. During the warranty period, a replacement for any defective product will be supplied free of charge for installation by the consumer. The warranty provided herein does not cover charges for labor or other costs incurred in the troubleshooting, repair, removal, and installation service.
2. All returns of defective parts or products must include the product model number, and must be made through an authorized Delta Electronics distributor. Authorized returns must be shipped prepaid. Repaired or replacement products will be shipped by Delta Electronics F.O.B. shipping point.
3. Delta Electronics shall not be liable for any indirect, incidental, consequential, punitive, or special damages arising out of or in connection with products use or performance, regardless of the form of action whether in contract, tort (including negligence), strict product liability or otherwise.
4. This warranty does not extend to fluorescent lamp starters and tubes.
5. The warranty does not cover if user does not comply with manufacturer's installation manual.
6. To qualify for warranty service, you must notify Delta Electronics at the address or telephone number below.
7. Delta Electronics shall have no liability to the original owner-user with respect to any defect caused by abuse, misuse, neglect, improper transportation or storage, improper testing, improper installation, improper operation, improper use, improper maintenance, improper repair, improper alteration, improper modification, tampering or accident of products or parts thereof, or unusual deterioration or degradation of products or parts thereof due to a physical environment beyond the requirements of products' specifications.

Address: 4405 Cushing Parkway, Fremont, CA 94538  
US Toll Free Number: 1-888-979-9889